

## CLAIMS

### What is claimed is:

1. A method of controlling the spread of a material deposited on a semiconductor device component, comprising:  
5 providing said semiconductor device component;  
depositing said material on said semiconductor device component; and  
inverting said semiconductor device component until said material obtains a desired  
stable shape and boundary definition of said deposited material.
- 10 2. A method of controlling definition of surface features of a material deposited on a semiconductor device component, comprising:  
providing said semiconductor device component;  
depositing said material on said semiconductor device component; and  
15 inverting said semiconductor device component until said material obtains a desired  
stable shape and boundary definition of said deposited material.
- 20 3. A method of controlling the angle of repose of a material deposited on a semiconductor device component, comprising:  
providing said semiconductor device component;  
25 depositing said material on said semiconductor device component; and  
inverting said semiconductor device component until said material obtains a desired  
stable angle of repose of said deposited material.
4. A method of forming an adhesive patch, comprising:  
providing a semiconductor substrate;  
depositing an adhesive material on said semiconductor substrate; and  
inverting said semiconductor substrate until said adhesive material obtains a desired  
stable shape and boundary definition of said deposited adhesive material.

5. The method of claim 4, wherein depositing said adhesive material, includes:

placing a template, having at least one aperture, on said semiconductor substrate;  
depositing said adhesive material into said template aperture; and  
removing said template.

6. The method of claim 4, wherein said semiconductor substrate includes a flip-chip used in an lead-on-chip attachment configuration.

7. A semiconductor substrate having at least one adhesive patch formed by:  
providing a semiconductor substrate;  
depositing an adhesive material on said semiconductor substrate; and  
inverting said semiconductor substrate until said adhesive material obtains a desired  
stable shape and boundary definition of said deposited adhesive material.

8. The semiconductor substrate of claim 7, wherein depositing said adhesive material, includes:  
placing a template, having at least one aperture, on said semiconductor substrate;  
depositing said adhesive material into said template aperture; and  
removing said template.

9. A method of forming a conductive bump, comprising:  
providing a semiconductor substrate having at least one bond pad;  
forming a conductive bump on said semiconductor substrate bond pad with a  
conductive material; and  
inverting said semiconductor substrate until said conductive material obtains a desired  
stable shape and boundary definition of said deposited conductive material.

10. The method of claim 9, wherein forming said conductive bump includes:

placing a template, having at least one aperture, on said semiconductor substrate;  
depositing said conductive material into said template aperture; and  
removing said template.

11. The method of claim 9, wherein said semiconductor substrate includes a printed circuit board.

12. The method of claim 9, wherein said semiconductor substrate includes a flip-chip.

13. A printed circuit board having at least one conductive bump formed by:  
providing said printed circuit board with at least one bond pad;  
forming a conductive bump on said printed circuit board bond pad with a conductive material; and  
inverting said printed circuit board until said conductive material obtains a desired stable shape and boundary definition of said deposited conductive material.

14. The method of claim 13, wherein forming said printed circuit board includes:

placing a template, having at least one aperture, on said printed circuit board;  
depositing a conductive material into said template aperture; and  
removing said template.

15. A flip-chip having at least one conductive bump formed by:  
providing said flip-chip with at least one bond pad;  
forming a conductive bump on said flip-chip bond pad with a conductive material; and  
inverting said flip-chip until said conductive material obtains a desired stable shape  
and boundary definition of said deposited conductive material.

16. The method of claim 15, wherein forming said conductive bump  
includes:  
placing a template, having at least one aperture, on said flip-chip;  
depositing a conductive material into said template aperture; and  
removing said template.

17. A method of forming an encapsulant on a semiconductor device,  
comprising:  
providing a semiconductor substrate having a semiconductor device attached thereto;  
depositing an encapsulant material on said semiconductor device and on a portion of  
said semiconductor substrate; and  
inverting said semiconductor substrate until said encapsulant material obtains a desired  
stable shape and boundary definition of said deposited encapsulant material.

18. The method of claim 17, wherein said portion of said semiconductor  
substrate includes an area about a periphery of said semiconductor device.

19. The method of claim 17, wherein depositing said encapsulant material includes:

placing a template, having at least one aperture, on said semiconductor substrate wherein said aperture exposes said semiconductor device and said portion of said semiconductor substrate;  
depositing said encapsulant material into said template aperture; and  
removing said template.

20. A method of forming an adhesive coated lead frame, comprising:  
providing a lead frame having at least one lead finger;  
depositing an adhesive material on a portion of an attachment surface of said lead finger; and  
inverting said lead frame until said adhesive material obtains a desired stable shape and boundary definition of said deposited adhesive material.

21. An adhesive coated lead frame formed by:  
providing a lead frame having at least one lead finger;  
depositing an adhesive material on a portion of an attachment surface of said lead finger; and  
inverting said lead frame until said adhesive material obtains a desired stable shape and boundary definition of said deposited adhesive material.

22. A method of forming a conductive trace, comprising:  
providing a semiconductor substrate;  
forming a conductive trace on said semiconductor substrate with a conductive material; and  
inverting said semiconductor substrate until said conductive trace obtains a desired stable shape and boundary definition of said deposited conductive trace.

23. The method of claim 22, wherein forming said conductive trace includes:

placing a template, having at least one aperture with a desired shape of said conductive trace, on said semiconductor substrate;

5 depositing said conductive material into said template aperture; and removing said template.

24. The method of claim 22, wherein said semiconductor substrate includes a printed circuit board.